APLICACIONES TECNOLÓGICAS

AT-STORM® v.02

WORKSTATION USER MANUAL

2011 | LIGHTNING PROTECTION DIVISION

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INTRODUCTION

This handbook explains briefly the different configurations which can be implemented with the ATSTORM v.02 Workstation.

For more detailed information, contact Aplicaciones Tecnológicas, S.A.:

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INSTALLATION INSTRUCTIONS

For the installation of ATSTORM 3 parts will be considered:

Sensor:

Always placed outdoors and over the roof. Provided with a multicore female connector.

Cable:

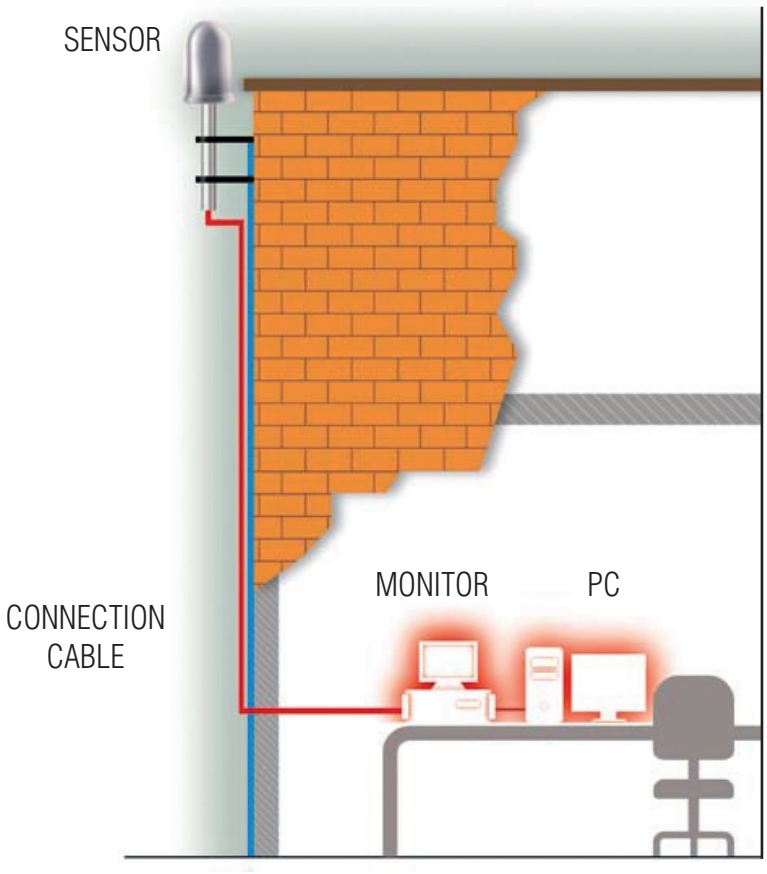
25m cable.
Male multicore connector at one extreme (for connecting with sensor).

Station(interface).

Always placed indoors.

COMPONENTS

- **1** Sensor
- **2** Mast 1 1 ½", 1,5m
- **4** Screws M4x10mm
- **2** Anchorage pieces
- **25** M. Connection cable with 1 connector
- **1** Station
- **1** LCD touchscreen
- **1** Schucko power cable
- **1** VGA cable screen-station
- **1** USB touchscreen cable
- **1** Screw monitor power with Schucko connection



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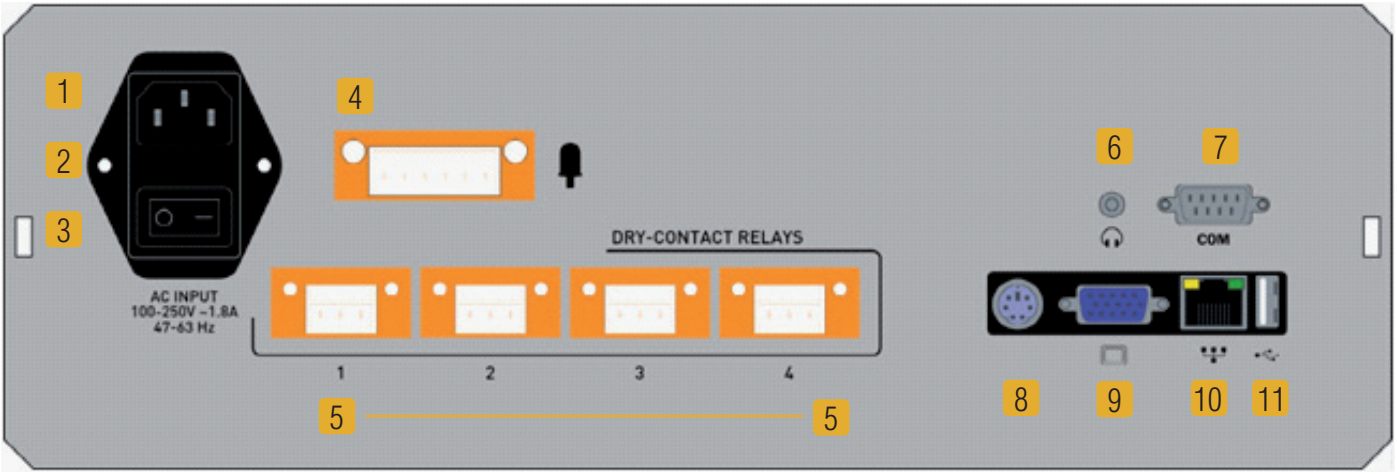
MONITOR SETTINGS AND CONNECTIONS

1 Information interface
2 Power leds
3 Use CPU indicator led
4 USB connector for data download



1 Power Schucko
2 Fuses
3 Switch of/on
4 Cable connector for the sensor
5 Dry contact relay
6 Audio output Jack
7 DB9 communicaton conector
8 PS2 keyboard connector
9 VGA monitor connector
10 RJ-45 connector
11 USB touchscreen connector

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INSTALLACION PROCEDURE

Sensor: fixing and connections

1 Fix the anchorages on the wall.

2 Pass the connecting cable through the mast and connect the cable to the sensor.

3 Fix the sensor to the mast with the provided 4 screws

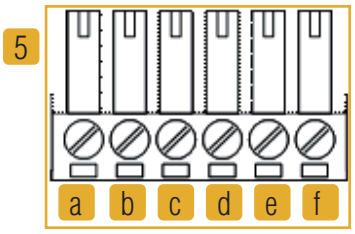
4 Fix the mast with the sensor in the achorage.

The part of the cable running outdoors should be placed inside the guard tube. If this part is longer than 1 meter then that tube should be fixed to the wall.

5 The monitor is a desktop so you do not need any installation or special subject.

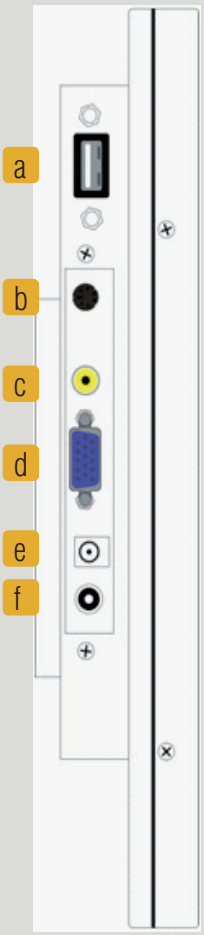
The system is supplied with 25m connecting cable. Once the cable enters the building and reaches the place to be installed then it can be cut to the proper length (it has no connector).

6 Fasten the cables in the connector 5 It is very important to follow carefully the code color



- a Pink
- b Grey
- c White
- d NC
- e Yellow
- f NC

Cable connection Sensor connection



USB touchscreen connection a

N/C b

N/C c

VGA connector d

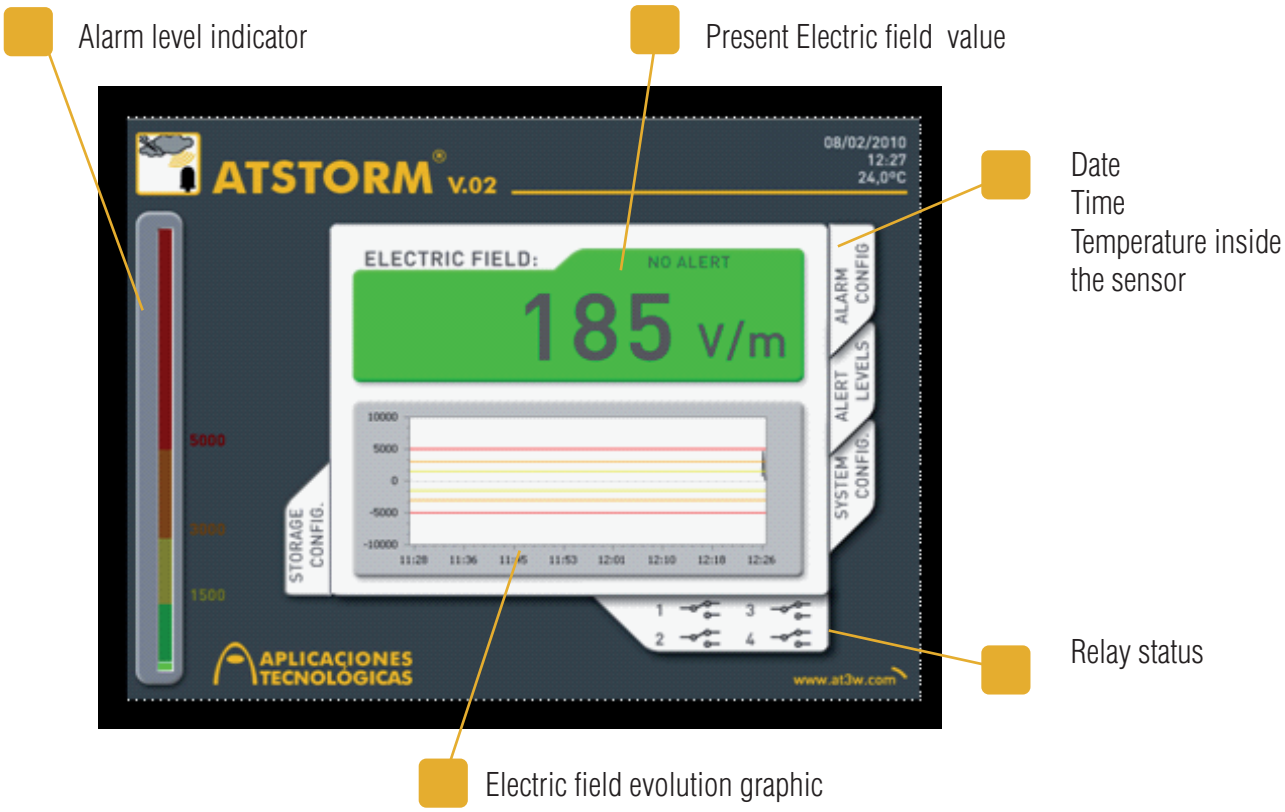
Power supply Jack e

N/C f

MENU OPTIONS

The Workstation has two parts:

1) Touchscreen for easy use.
2) Interface between the sensor and the screen.



TOUCHSCREEN COMPONENTS:

Scroll of leds that lights up according to the existing electric field and the configured alarm levels, thus indicating the present storm hazard.

Colour LCD screen that displays the information sent by the sensor, represented on a graph.

Labels to access the different menus in order to configure different parameters.

To access any label the PIN code is needed. The default PIN is 0000 and it can be changed in the SYSTEM CONFIG screen

ALARM CONFIGURATION

Press the **ALARM CONFIG** label. After entering the PIN code, the following screen is displayed:

The equipment has 4 free relay outputs which can be associated to each alarm level or to a communication failure between the sensor and the interface. To define the outputs:

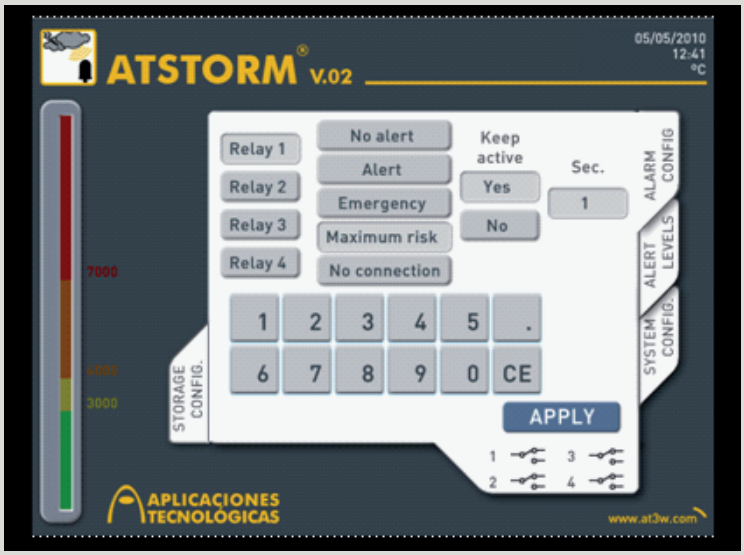
Press the button of the relay to be configured (first column)

Select the alert level or the communication failure to be associated to that relay (second column).

Define if the relay should keep active or not when a higher alarm level is reached.

Indicate how long should the field value remain in a level to activate the relay

Press **APPLY** to validate the changes and to go back to the main screen.



ALERT LEVELS

Press the **ALERT LEVELS** label. After entering the PIN code, the following screen is displayed:

This screen allows the configuration of two different elements:

The value of the **alarm threshold**.

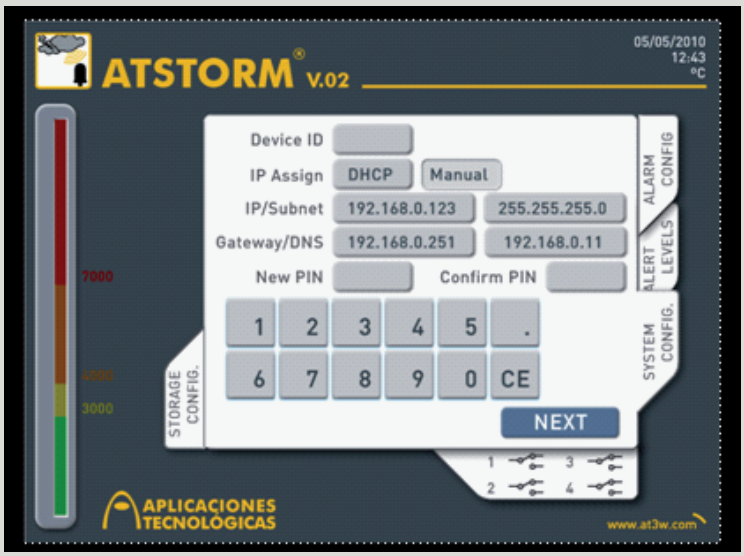
The **time of storage** for each alert level.

Press the button of the parameter to be fixed and insert the value using the numeric keyboard.

Press **APPLY** to validate the changes and to go back to the main screen.

SYSTEM CONFIGURATION

Press on the **SYSTEM CONFIG** label. After entering the **PIN** code, the following screen is displayed:



Device ID: Allows introducing the ID number of the equipment. Then it will be registered in the network as ATSTORM + ID. The system **will be rebooted.**

IP Assign: Pressing on the DHCP label, the IP configuration will be automatically assigned if the network allows it. If not, the user should enter manually the IP, the subnet mask, the gateway and the DNS server.
New PIN/Confirm PIN: it is necessary to confirm the PIN code every time it is changed.

Press on the **NEXT** button to access the second configuration window.

Time Scale: Select the time for the graphic representation of the field evolution. Possible values: 1, 4, 12 or 24 hours.

Max. Field: Insert the highest field value in V/m to be represented on the field evolution graph.
Data Source: There are 2 options:
Internal: to connect the equipment directly to the sensor.
Network: to contact a workstation that is connected to the network through a computer using the specific ATSTORM software. When this option is chosen, two new fields will appear in order to introduce the IP address and the port of the remote equipment to be connected.
Date/Time: changing the date and time of the equipment.

Press APPLY to validate the changes and to go back to the main screen.

STORAGE CONFIGURATION

Press **STORAGE CONFIG.** to access the main data storage configuration screen. After entering the PIN code, the following screen is displayed:

From this screen the user can download the data into a flash memory connected to the USB port of the equipment:

Select the starting date of the data to be downloaded.

Select the last date of the data to be downloaded.

Choose if the data should be copied, deleted or both.

Select the unit where the data will be stored.
Press **APPLY** to download the data.

NOTE: Depending on the amount of downloaded data, this operation may take several minutes.

If there is an updated file in the main directory of the memory, then the **Upgrade** button will appear every time the user selects the destination unit. Press on this button and the system will reboot, starting with the new updated application.

DATA ACCESS TROUGH THE NETWORK

It is possible to access the data trough the network:

- Insert either the name of the equipment or its IP address in a PC explorer connected to the same network: **\\ATSORM0001 or \\192.168.0.70**
- Write the User: Atstorm
- Write the Password: the PIN code configured on the equipment.
- The equipment shares two folders:

a) Data contains the *.csv files with the data storage.

b) Logs contains the log files with the most important events.

DATA FILE EXAMPLE

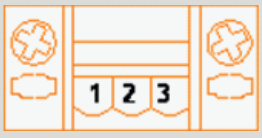
The system creates daily a .csv file named with the date (yyyymmdd.csv). The number of different data per day will depend on the time of storage for each alert level that is selected in the menu of **ALERT LEVELS**. An example of a data file may be as follows:

Hour Type of sensor Field value
Type of sensor Temperature value

```
00:02:07,1,-203,2,268
00:03:07,1,-257,2,268
00:04:07,1,-620,2,268
00:05:07,1,-994,2,268
00:06:07,1,-839,2,268
00:07:07,1,-786,2,268
```

FREE-CONTACT OUTPUTS

The Workstation is equipped with four free-contact outputs that can be configured in the **ALARM CONFIG.** menu. Those outputs are four relays with two contacts: one normally open and the other normally closed. They will commute according to the given configuration. The connections are as follows:



1 Normally open
2 Common
3 Normally closed

VMAX: 250 Vac
IMAX: 2A

TECHNICAL SPECIFICATIONS ATSTORM® V2

Operating

Detection range 10 km around the sensor
Resolution 1V/m Response time 1 second
Sensor measuring range -100 to +100 KV/m Interface display Touchscreen
Alarm levels 4 configurable alarm levels Interface
alarm sound level 80 dB

Electrical

Sensor DC Voltage 15Vdc
Interface power supply 230Vac (+/-15%) Frequency 50Hz
Power 15 W
Relay outputs 4 configurable outputs (for
instance 3 storm alarms and one communication failure
250Vac, 2A (block connector)
Protections The interface is protected against
overcurrents and overvoltagesa

Mechanical

SENSOR

Weight 1 Kg
Dimensions Ø166 x 226 mm Cable 25m
Maximum separation distance 100m (with optional wire)
Framework material Polypropylene IP Code IP54
Fixing Fixed to 1 ½" tube

INTERFACE

Weight 4,6 Kg
Touchscreen weight 3,5 Kg
Dimensions 350 x 260 x 120 mm
Touchscreen dimension 12,1"

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AT-STORM® V.02 TECHNICAL SPECIFICATIONS

Environmental

Sensor working temperature -40 a 85ºC
Interface working temperature -10 a 85ºC

Communications

Interface Configurable serial,
Ethernet Outputs Audio signal

Mounting

Mast* 1½", 2m galvanised steel mast included
Anchoring* U-shaped anchorage consisting of 2 galvanised steel, 30cm long supports with screws for wall fixing (all included)
Corrugated tube Protection tube for communication cable included

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